C L A I M S

1. A flow control device comprising:

a valve;

an actuator portion operably connected to and positioning the valve;

a controller operably connected to the actuator and providing control signals thereto;

an external communications system operably connected to the controller and providing control signal input thereto; and

a magnetically actuated sensor operatively connected to the controller and providing a first signal thereto in response to the movement or presence of a magnetic field.

2. The flow control device of claim 1 wherein the controller positions the actuator in response to receiving the first signal from the sensor.

3. The flow control device of claim 1 wherein the controller transmits a second signal on the communications system in response to receiving the first signal.

4. The flow control device of claim 3 wherein the controller does not transmit the second signal if the controller determines that the controller has an identity.

5. The flow control device of claim 4 wherein the magnetically actuated sensor is a Hall effect sensor.

6. A flow control device comprising:

a valve;

controller circuitry operatively connected to the valve and controlling a position of the valve in response to a first condition; and

a magnetically actuated sensor operatively connected to the control circuitry for detecting a magnetic field and initiating a control mode sequence in the control circuitry.

7. The flow control device of claim 6 wherein the controller positions the valve in response to the control mode sequence being initiated.

8. The flow control device of claim 6 further including communications circuitry in the control circuitry wherein the communications circuitry is operatively connected to a communications bus for two-way communications.

9. The flow control device of claim 8 wherein the control circuitry sends a first signal to the communications circuitry in response to the initiation of the control mode sequence.

10. The flow control device of claim 9 wherein the control circuitry does not transmit the first signal if the control circuitry determines that it has an identity.

11. The device of claim 10 wherein the first condition is temperature, pressure or a command from a remote controller.

12. A method of controlling an electronic expansion valve comprising the steps of:

providing an electronic expansion valve having a normal mode of operation and an override mode of operation;

controlling the operation of the electronic expansion valve in its normal mode responsive to a first condition; and

controlling the operation of the electronic expansion valve in its override mode responsive to a magnetically actuated sensor.

13. The method of claim 12 wherein the override controlling step positions the electronic expansion valve to predetermined positions responsive to the magnetically actuated sensor.

14. The method of claim 13 wherein the first condition is pressure, temperature or a command from a main processor.

15. A method of controlling a control device comprising the steps of:

providing a control device having a housing;

inducing a magnetic field in the housing;

sensing the presence or absence of the magnetic field; and

initiating a control mode sequence of the control device responsive to the sensed magnetic field.

16. The method of claim 15 wherein the initiating step includes the further steps of determining if the flow control device has been provided with an identity by an external controller and ignoring the sensed magnetic field if an identity is so determined.

17. The method of claim 16 including the further steps of responding to the commands of an external controller once the magnetic field has been sensed and the control mode sequence initiated.

18. A flow control device comprising:

a housing;

an actuator located within the housing;

a controller operably connected to and controlling the actuator in response to a first condition; and

a magnetically actuated sensor operably connected to the controller and providing a signal to the controller in response to sensing the presence or absence of a magnetic field wherein the controller initiates a predetermined control sequence in response to the sensed presence of a magnetic field.

19. The flow control device of claim 18 wherein the magnetically actuated sensor is a hall effect sensor.

20. The flow control device of claim 19 wherein the magnetically actuated sensor includes a magnetically moveable object.

21. The flow control device of claim 20 wherein the controller includes circuitry operatively connected to and communicating with a communications bus and wherein the predetermined control sequence includes the transmission of a signal on the communications bus using the control circuitry.

22. A method of configurating a device having a control portion and a functional portion comprising the steps of:

sending a magnetic signal to the device;

receiving the magnetic signal in the device;

recognizing the magnetic signal in the control portion of the device;

transmitting from the control portion of the device a signal requesting an identity and operating parameters to a remote main process; and

receiving and implementing the identity and operating parameters from the remote main processor.

23. The method of claim 22 wherein the implementation of the identity in operating parameters subsequently prevents the control portion from transmitting a signal requesting an identity and operating parameters.

24. A device comprising:

a control portion;

a functional portion operably connected to the control portion and responsive thereto; and

a magnetic sensor operably connected to the control portion and operably configured to receive a magnetic signal.

25. The device of claim 24 wherein the control portion, responsive to the presence or absence of a magnetic signal detected by the magnetic detector, includes a transmitter and circuitry operatively capable of transmitting a signal requesting an identity and/or operating parameters responsive to the magnetic sensor.

26. The device of claim 25 wherein the functional portion includes an analog input, a digital input, an analog output or a digital output.

27. The device of claim 26 wherein the digital input, the analog input, the digital output or the analog output may be a temperature sensor, a pressure sensor, a level sensor, a solenoid, an actuator, a control device or an expansion valve.

28. The device of claim 27 wherein the control portion further includes override circuitry preventing the transmission of the signal requesting an identity and operating parameters if the control portion determines that an identity and operating parameters have already been implemented within the control portion.

29. A device comprising:

a control portion operatively connected to a communications bus for two way communications;

a functional portion operably connected to the control portion and responsive thereto; and

a non-invasive sensor operably connected to the control portion and operably configured to receive a non-invasive signal and report the detection of the non-invasive signal to the control portion.

30. The device of claim 29 wherein the non-invasive sensor senses magnetism, heat or light.

31. The device of claim 29 wherein the presence of a non-invasive signal causes the control portion to commence operative communications on the communications bus with an external controller.

32. The device of claim 31 wherein the control portion requests an identity and parameters from the external controller.

33. The device of claim 32 wherein the control portion determines whether an identity and operating parameters have previously been implemented and ignores the detection of the non-invasive signal if such a determination is made.

34. The device of claim 29 wherein the control portion transmits a predetermined signal to the functional portion upon detection of the non-invasive signal.

35. A device that provides an analog or digital input or output comprising:

a control portion and a functional portion operably connected and controlled by the control portion;

the functional portion being operably capable of providing an analog or digital input or output;

the control portion including an external communications port operably connected to a control bus, an actuator responsive to a non-invasive signal, and a controller operably connected to the external communications port and capable of sending and receiving communications through that port;

wherein the controller is operably connected to the actuator and receives a signal from the actuator, the controller transmitting a signal to the external port upon receipt of an actuator signal.

36. The method of claim 35 wherein the actuator is sensitive to a magnetic field and provides the actuator signal upon recognizing a magnetic field.

37. The device of claim 36 wherein after transmitting the signal initiated by the actuator, the controller awaits and receives an identification and operating parameter providing signal which the controller retains in a memory portion of the controller.

38. The device of claim 37 wherein the controller will only initiate an actuator initiated signal if the controller does not have an identification and operating parameters in the memory portion.

39. A device that provides an analog or digital input or output comprising:

a control portion and a functional portion operably connected and controlled by the control portion;

the functional portion being operably capable of providing an analog or digital input or output;

the control portion including an external communications port operably connected to a control bus, an actuator responsive to a magnetic signal, and a controller operably connected to the external communications port and capable of sending and receiving communications through that port;

wherein the controller is operably connected to the actuator and receives a signal from the actuator, the controller enabling itself to receive a signal from the external port upon receiving a signal from the actuator.

40. The device of claim 39 wherein the controller places itself in the enabling configuration mode anytime it receives an actuator signal.